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ECONOMIC INTELLIGENCE MEMORANDUM

ANNUAL REVIEW OF CIVIL AVIATION IN THE SINO-SOVIET BLOC
1959



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CENTRAL INTELLIGENCE AGENCY

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FOREWORD

This memorandum is one in a series of annual publications that are designed to present in summary form the significant developments in transportation in the Sino-Soviet Bloc during each preceding calendar year.

In addition to the present memorandum on civil aviation, the series will include two other annual publications, one on developments in inland transportation in the Sino-Soviet Bloc and another on merchant shipping in the Sino-Soviet Bloc.

This memorandum has been coordinated within this Office but not with other USIB agencies.

- iii -

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CONTENTS

	<u>Page</u>
I. Introduction	1
II. USSR	4
A. Domestic Developments	4
1. Administration	4
2. Performance and Operations	5
3. Inventory and Types of Aircraft	8
4. Expansion of Routes	9
5. Air Facilities	10
B. International Developments	10
1. International Network	10
2. Negotiations	11
3. Sales of Aircraft	12
III. European Satellites	13
A. Domestic Developments	13
B. International Developments	14
IV. Communist Far East	15
A. Domestic Developments	15
B. International Developments	16

Tables

1. USSR: Performance of Aeroflot, Selected Years, 1945-59 .	6
2. USSR: Inventory of Civil Aircraft Held by Aeroflot, 1957-59	8
3. USSR: Length of Scheduled Routes of National Importance Operated by Aeroflot, Selected Years, 1940-59	10
4. European Satellites: Passenger Performance of Civil Air Carriers, 1955-59	13

- v -

~~SECRET~~

~~SECRET~~

	<u>Page</u>
5. European Satellites: Inventory of Civil Aircraft as of 31 December 1959	15
6. Communist China and North Korea: Civil Air Passenger Traffic, 1956-59	16
7. Communist Far East: Inventory of Civil Aircraft as of 31 December 1959	17

Illustrations

	<u>Following Page</u>
Figure 1. USSR: Performance of Aeroflot, 1955-65 (Chart)	6
Figure 2. USSR: Domestic Routes of Aeroflot, March-May 1960 (Map)	10
Figure 3. USSR: International Routes of Aeroflot, 1959 (Map)	12
Figure 4. European Satellites: Domestic and Inter- national Routes of Civil Air Carriers, 1959 (Map)	14
Figure 5. Communist Far East: Domestic and Interna- tional Routes of Civil Air Carriers, 1959 (Map)	16

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ANNUAL REVIEW OF CIVIL AVIATION IN THE SINO-SOVIET BLOC*
1959

I. Introduction.

The greatest progress in civil aviation in the Sino-Soviet Bloc during 1959 was in the USSR. At the end of the year the USSR and the US were about on a par in terms of ownership of high-performance jet and turboprop civil air transports, as follows:

<u>Type of Transport Aircraft</u>	<u>Units</u>	
	<u>USSR</u> <u>(Estimated)</u>	<u>US</u> <u>(Actual)</u>
Four-engine jet	0	84
Two-engine jet	155	0
Four-engine turboprop	125	181
Two-engine turboprop	0	34
Total	<u>280</u>	<u>299</u>

In volume of passenger-kilometers and freight ton-kilometers** flown during 1959, the Soviet civil air fleet, Aeroflot, was second in the world only to the combined operations of US civil air carriers, but it was second by a margin of about 5 to 1 in passenger-kilometers and by about 2 to 1 in freight and mail ton-kilometers. Nevertheless, gains in the operations of Aeroflot during 1956-59 represented increases of about 300 percent in passenger-kilometers and about 130 percent in freight and mail ton-kilometers. Aeroflot was rapidly becoming qualified for competition with the advanced Western air carriers.

The European Satellites and the Communist Far East in 1959 had very few high-performance aircraft, and their operations were of small import when compared with the operations of Aeroflot. The gap between traffic performance in the USSR and that in the rest of the Sino-Soviet Bloc widened markedly during the year. The USSR increased passenger-kilometers by 3,760 million during 1959, while the rest of the Bloc is estimated to have attained an increase of less than 200 million passenger-kilometers.

* The estimates and conclusions in this memorandum represent the best judgment of this Office as of 1 June 1960.

** Tonnages are given in metric tons throughout this memorandum.

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The USSR continued to be the principal producer of commercial aircraft in the Sino-Soviet Bloc, although the Il-14 (Crate), a light transport aircraft, was being manufactured in both Czechoslovakia and East Germany. There were several important changes in programs for the development and production of Soviet high-performance transport aircraft. Further development of the four-engine jet transport Tu-110 (Cooker) was discontinued, and in late 1959 production of the two-engine jet transport Tu-104 (Camel) tapered off and may have dropped to around one a month. At the same time, progress was made on two new two-engine transports, the Tu-124 and the An-24, which are designed to carry 40 and 46 passengers, respectively, for short distances and will eventually supplant the Il-12 (Coach) and the Il-14. Production of all types of high-performance transports in the USSR more than doubled in 1959, primarily through the use of production facilities formerly engaged in production of bombers. Concurrent developments were the premature addition of high-performance transports to the civil inventory before the completion of endurance testing of key components and equipment, the construction of modern airfields with adequate terminals and maintenance facilities, and the installation of up-to-date communications systems.

In spite of the many problems associated with the uneven development of civil aviation in the USSR, both the improved Tu-104B and the Il-18 (Coot) were introduced on regularly scheduled operations during 1959. Experimental use of the An-10 (Cat) on some passenger flights pointed to its introduction on scheduled service early in 1960. The largest commercial aircraft developed in the USSR, the Tu-114 (Cheat), made its first appearance in Western airspace during 1959. By the end of the year the USSR made the first deliveries of the Il-18 to Communist China. Initial deliveries of the Il-18 to Czechoslovakia early in 1960 and the announced plans of other Satellites to utilize the Il-18 foreshadow rapid changes in the inventories of most civil air carriers of the Sino-Soviet Bloc.

The imminence of extensive use of high-performance transport aircraft throughout the Sino-Soviet Bloc during 1959 gave a new impetus to programs for development of air facilities. Although development of this type was not pursued with the same intensity as the program for production of aircraft, some progress was made, particularly in the European Satellites.

The most rapid extension of domestic air services in the Sino-Soviet Bloc during 1959 took place in the USSR, where route distance of scheduled services increased by 5,000 km. There was a general curtailment of domestic services in the European Satellites, and in Communist China an intensive effort to expand the domestic route network apparently precluded any serious efforts to expand services outside the Bloc. There was some improvement during 1959 in the quality of passenger service, but

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Bloc airlines remained unreliable and inefficient by Western standards. Although some Bloc airlines operated certain international routes at a profit, apparently each Bloc airline sustained substantial financial losses on its total operations in 1959.

A noteworthy development in the Sino-Soviet Bloc in 1959 was the closer coordination of the civil air network. A subcommittee on air transport under the Council for Mutual Economic Assistance (CEMA) held its first meeting in Moscow in December 1959. The assumption by CEMA of the coordination of air operations led for the first time to full Soviet participation in the solution of problems in intra-Bloc aviation. Observers from Communist China and Mongolia also attended this meeting. The new subcommittee considered such fundamental problems as standardization of air traffic regulations, regulations for jet and turboprop flights, and the development of air traffic on international routes.

The expansion of international air operations by the carriers of the Sino-Soviet Bloc was at a slower pace in 1959 than in 1958. The development of such operations within the Bloc was focused on completion and improvement of air service between Bloc capitals. The only new route established was from Peking to P'yongyang. Improved international service within the Bloc also was obtained by the allocation of jet and turboprop aircraft to the air routes connecting many Bloc capitals.

The most significant addition to Sino-Soviet Bloc operations in the Free World during 1959 was the semiweekly service between Moscow and London that began in May. The Moscow-London route became the first international route outside the Bloc on which the Il-18 was flown. The only other international connection outside the Bloc added during 1959 was a jet service from Prague to Bombay via Cairo. Air agreements were negotiated with several Free World countries, including agreements between Communist China and Ceylon, Hungary and Switzerland, and Bulgaria and the United Arab Republic (UAR).

Although there was not the same rate of increase in international flight activities in 1959 as in the years immediately preceding, the Sino-Soviet Bloc continued to exert pressure on the countries of the Free World to enter into negotiations leading to commitments for extension of service. Internal Bloc developments in modernizing air facilities and increasing inventories of high-performance aircraft also laid a good groundwork for rapid expansion. Late in the year the USSR launched a fairly extensive program for the sale of Il-18 aircraft to Free World countries. Many of the small Bloc carriers achieved considerable success in negotiating interline agreements with Western

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carriers. The intensive efforts of the USSR and Czechoslovakia to obtain overflight or transit rights from Greece are of particular importance. Successful negotiation of such rights will represent a major step toward eliminating some of the remaining barriers to more active air operations by Bloc carriers in the Middle East, Southeast Asia, and Africa.

Thus the inventory of high-performance aircraft continues to build up in the USSR while the degree of utilization remains far lower than that of jet and turboprop aircraft in the US -- a situation that indicates a period of hesitancy following the failure of developments on the ground as well as in engines and other components of the aircraft and in the training of crews to keep pace with production of aircraft. It is likely that efforts are being made to bring these lagging elements into line and to expand domestic operations before exerting major pressures to obtain more international routes, particularly because suitable facilities for the most part also are lacking in the Sino-Soviet Bloc outside the USSR. In the meantime the USSR can gain valuable training and experience. Because of its size the civil air fleet constitutes a potential emergency air lift that is auxiliary to the military services and is capable on short notice of moving 25,000 or more armed troops or an equivalent weight of equipment and supplies.

Current Soviet policy is directed toward making air travel more convenient and cheaper than "soft-seat" railroad accommodations on trips of 500 miles or more and ultimately toward bringing the price down still further so that the railroads will lose a high percentage of intermediate and long-distance travel to the civil air fleet. Aeroflot, moreover, can reach many places in the remote portions of the USSR that have no rail connections. By providing links across the USSR that connect countries on each side of its borders, the USSR hopes eventually to compete successfully with Free World airlines, which are now obliged to follow longer courses around the Sino-Soviet Bloc and to adhere to a rate schedule that has been agreed on. The USSR also plans to develop routes across Africa and into South America, primarily to serve its own interests in penetrating the less developed countries of these continents. Finally, Aeroflot will provide a dependable medium for shipping valuable lightweight items, spare parts, equipment essential at remote localities, and high-speed freight of a general character bound over long distances.

II. USSR

A. Domestic Developments

1. Administration

In July 1959 a major reorganization took place in the management of the Main Administration of the Civil Air Fleet of the USSR.

- 4 -

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Marshal Pavel F. Zhigarev was succeeded as Chief by Colonel General Yevgeniy F. Loginov, and Marshal Semen F. Zhavoronkov was succeeded as First Deputy by General Nikolay I. Tsibin. Several other top officials also were removed, but an important figure, Colonel Viktor M. Danilychev, Chief of the Administration for International Air Communications, was retained.

The only Soviet comment on the administrative shifts accused the deposed management of utilizing funds of Aeroflot to obtain favorable consideration from Communist Party leaders assigned to promote civil aviation. Although this statement may reflect the actual reason for the shifts, Aeroflot did not appear to be well organized in its approach to its recent program of expansion. There was a distinct lack of coordinated planning for the acceptance and introduction of new aircraft and a marked lag in the development of modern air facilities and services.

Whatever the reason for the change in management, no drastic shifts in policy were noticeable in the second half of 1959. The energies of the present leadership probably have been directed toward the correction of deficiencies in the Il-18 and the An-10 in order to establish these aircraft on regularly scheduled domestic and international routes.

2. Performance and Operations

Annual increases in terms of both passenger-kilometers and freight ton-kilometers flown in 1959 were the greatest yet attained in the USSR. On the basis of an announced increase of 48 percent above that in 1958, it is estimated that 11.6 billion passenger-kilometers were flown in 1959. Performance in freight and mail ton-kilometers is estimated to have been 915 million, an increase of about 50 percent above that in 1958, as shown in Table 1.* Such large increases were due to the introduction into service of improved jet and new turboprop aircraft and a general policy of reduction of fares. The increases in performance achieved in 1959 were considerably in excess of the average annual rate of growth of about 30 percent needed to meet the estimated target of 47 billion passenger-kilometers for 1965 (see the chart, Figure 1**).

On many routes the new high-performance aircraft are operating with average passenger load factors that are extremely high. The six Tu-104 aircraft scheduled in each direction daily on the Lenin-grad-to-Moscow route are reported to have an average passenger load

* Table 1 follows on p. 6.

** Following p. 6.

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Table 1

USSR: Performance of Aeroflot
Selected Years, 1945-59

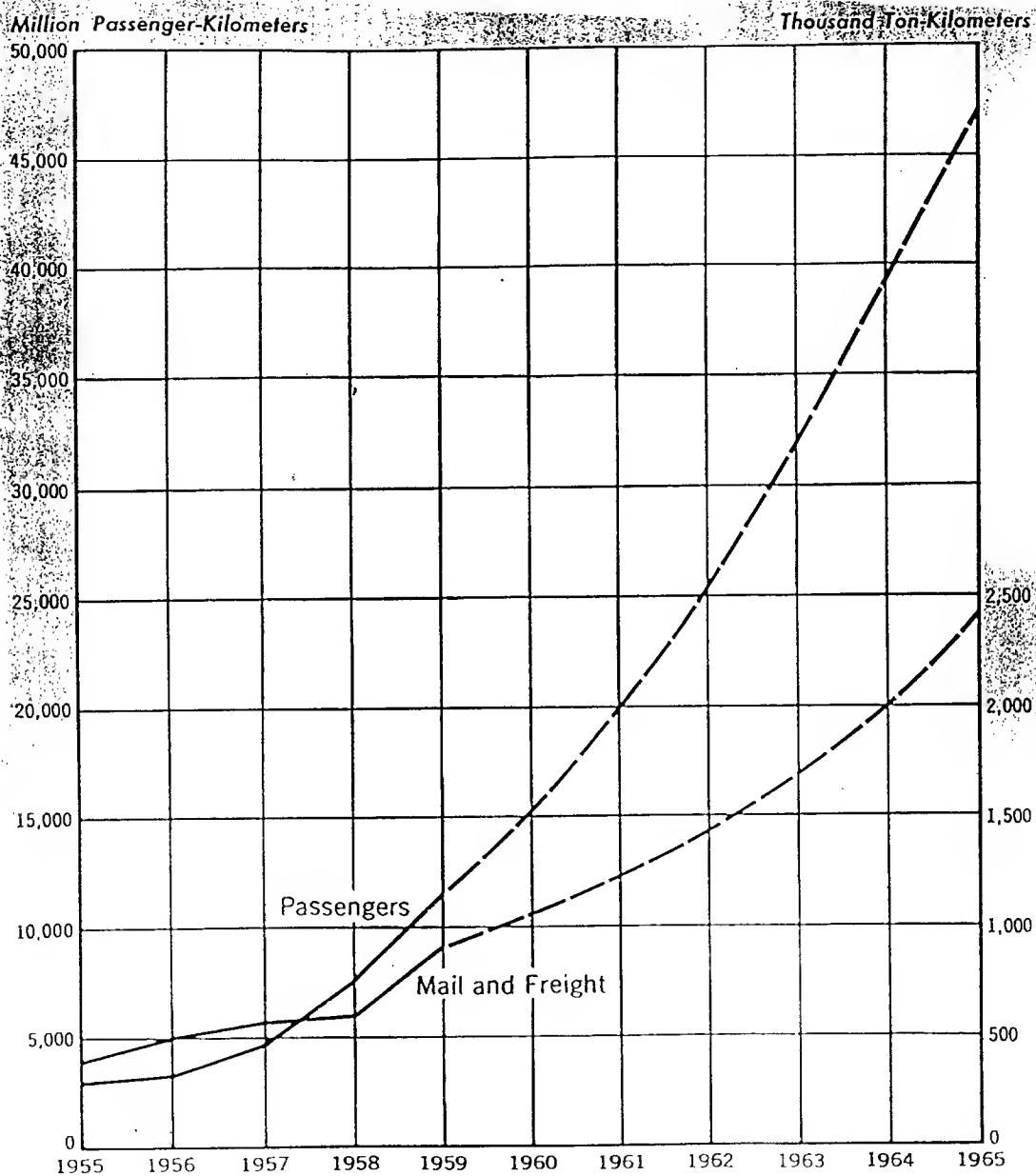
Year	Passenger Traffic		Freight Traffic	
	Thousand Passengers Carried	Million Passenger-Kilometers	Metric Tons of Freight and Mail Carried	Million Freight and Mail Metric Ton- Kilometers
1945	549	500	78,600	100
1950	1,410	1,220	175,000	214
1955	2,540	2,900	303,000	396
1956	3,050	3,260	374,000	510
1957	5,150	4,760	452,000	584
1958	8,040	7,840	550,000	610
1959	11,900	11,600	825,000	915

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Figure 1

USSR PERFORMANCE OF AEROFLOT 1955-65



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factor of 97.5 percent. Traffic density on this route is five times that in 1958. The Trans-Siberian services from Moscow and Leningrad to the Soviet Far East also were well patronized, and by October 1959 seven flights daily in each direction were operated on these routes. One observer has estimated that Aeroflot was running its mainline domestic flights during the summer months with an average load factor of about 80 percent.

Civil aviation operations in the USSR are characterized by a seasonal decline in traffic that occurs during the winter months. To counteract this loss of patronage, a system of fare concessions was instituted during February and March, and even greater reductions were made in November 1959. These wintertime concessions are in addition to the general lowering of rates that Aeroflot has been using to generate air traffic and to divert much of the long-distance rail travel to air carriers. The general effect of this rate policy was to reduce Soviet domestic air rates in the summer of 1959 to between 20 and 25 kopecks* per passenger-kilometer. The special wintertime concessions in November 1959 gave additional reductions on the longer hauls of up to 25 percent. As a result, the rate per passenger-kilometer between Moscow and Khabarovsk, for example, was 17-1/4 kopecks. This rate was somewhat lower than the first-class rail rate and about three times the "hard-seat" rail rate.

Nearly all air passenger travel in the USSR in 1959 was tourist class. The few first-class runs were all on international routes.

In view of the sizable increases in traffic in 1959, it is not surprising that travelers' reports on operations of Aeroflot continue to describe them as undependable and disorganized. Although the operations of Aeroflot may appear to be somewhat chaotic to the Western observer, apparently they have been carried on with a reasonable safety record. There have been indications, however, that as many as three high-performance aircraft were involved in crashes on domestic flights during the year. No crashes of Soviet commercial aircraft on international flights were reported in 1959. Accidents, of course, are treated as classified information.

* One hundred kopecks equal one ruble. Ruble values throughout this memorandum are expressed in current rubles and may be converted to US dollars at the rate of 4 rubles to US \$1. This rate of exchange, however, does not necessarily reflect the dollar value. A more realistic conversion for passenger fares would be at the rate of 10 rubles to US \$1.

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3. Inventory and Types of Aircraft

In 1959 the inventory of high-performance aircraft held by the Soviet civil air fleet was greatly expanded (as shown in Table 2), and initial operation of the Il-18 in passenger service was begun. The Tu-104B, which will carry 100 passengers, also was introduced to service for the first time. The Tu-110 was virtually abandoned, and the An-8 (Camp) and the An-12 (Cub) went exclusively to the Soviet Air Force. The Tu-114 is undergoing further testing before entering passenger service and probably is being used in freight operations during these tests. Toward the end of the year, production of the Tu-104 declined to a very low level, leaving the emphasis in high-performance aircraft on turboprop aircraft that, although slower than jet aircraft, are better suited to landing and taking off on sod airfields with short runways.

Table 2

USSR: Inventory of Civil Aircraft Held by Aeroflot
'1957-59

	Units			
<u>Type of Transport Aircraft</u>	<u>End of 1957</u>	<u>End of 1958</u>	<u>Mid- 1959</u>	<u>End of 1959 a/</u>
Jet				
Tu-104 (Camel)	35	75	140	155
Turboprop				
Il-18 (Coot)	0	35	65	75
An-10 (Cat)	0	5	25	45
Tu-114 (Cleat)	0	0	1	5
Two-engine aircraft, piston	1,520	1,550	1,525	1,500
Helicopter, medium	35	50	95	140
Light aircraft, one-engine and two-engine	N.A.	1,800	1,850	1,900

a. Forty additional high-performance aircraft had been delivered to Aeroflot at the end of 1959, but, as their whereabouts are not known, they are considered to be in testing, modification, or reserve.

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The Il-18, plagued with engine trouble, and the An-10, with an unsatisfactory vertical stabilizer, were prevented from entering passenger service until well into 1959. At the end of the year the An-10 was still not operated in regularly scheduled service. The Tu-114 also was reported to be having technical difficulties from unduly rapid wear on the gears activating the counterrotating propellers, and the propellers themselves seemed to need frequent replacement.

While these difficulties were being ironed out, the inventory of high-performance transport aircraft in the USSR rose from 115 to 280. This number of planes includes considerable unused capacity, for only 160 of these aircraft were observed in active service during the year. In spite of this apparent excess capacity, the An-10 and the Il-18 continue to be produced in relatively large numbers. The USSR, moreover, is developing another type of high-performance transport aircraft, the Tu-124. The latter has been reported as a two-engine jet aircraft capable of transporting 40 passengers at speeds of up to 900 kilometers (km) per hour. This aircraft is to be used for short-range to intermediate-range service (up to 1,800 miles) and was expected to be ready for service in the spring of 1960. The Tu-124 is now undergoing flight testing.

4. Expansion of Routes

The USSR in 1959 provided service on 320 scheduled routes of national importance with an estimated length of 182,000 km, as shown in Table 3,* out of a total network of 350,000 to 400,000 km. Installations of high-performance aircraft released a number of piston engine aircraft for the beginning of service on shorter and less densely traveled routes.

Subsequently, the domestic route distance of Aeroflot was extended by several thousand kilometers in Siberia and the Soviet Far East, including the assumption of several routes formerly flown by the Polar Aviation Service. Scheduled service between Moscow and Provideniya, with a stop at Anadyr, was established in March 1960. The greatest part of the expansion, however, may be expected to reflect the installation of regular service on medium-distance internal routes that either were new or had previously been flown as an intermittent feeder service (see the map, Figure 2**).

* Table 3 follows on p. 10.

** Following p. 10. This map does not show the newly established route between Moscow and Provideniya.

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Table 3

USSR: Length of Scheduled Routes of National Importance
Operated by Aeroflot
Selected Years, 1940-59

<u>Year</u>	<u>Thousand Kilometers</u>
1940	70
1950	147
1953	158
1955	173
1956	175
1957	177
1958	177
1959	182

5. Air Facilities

In 1959 the USSR continued to work toward the goal of the Seven Year Plan (1959-65) for the modernization or initial construction of 90 airports on mainline civil air routes. It is estimated that these airfields will require an investment of approximately 2.5 billion rubles plus 400 million rubles in addition for electronic and communications equipment. Of the several airports under construction, only those at Simferopol' and Sheremet'yevo/Moscow seem to have been completed at the end of the year. While construction of new airports is underway at Kiev, Irkutsk, Vladivostok, and other major terminals, military fields are being used by Aeroflot.

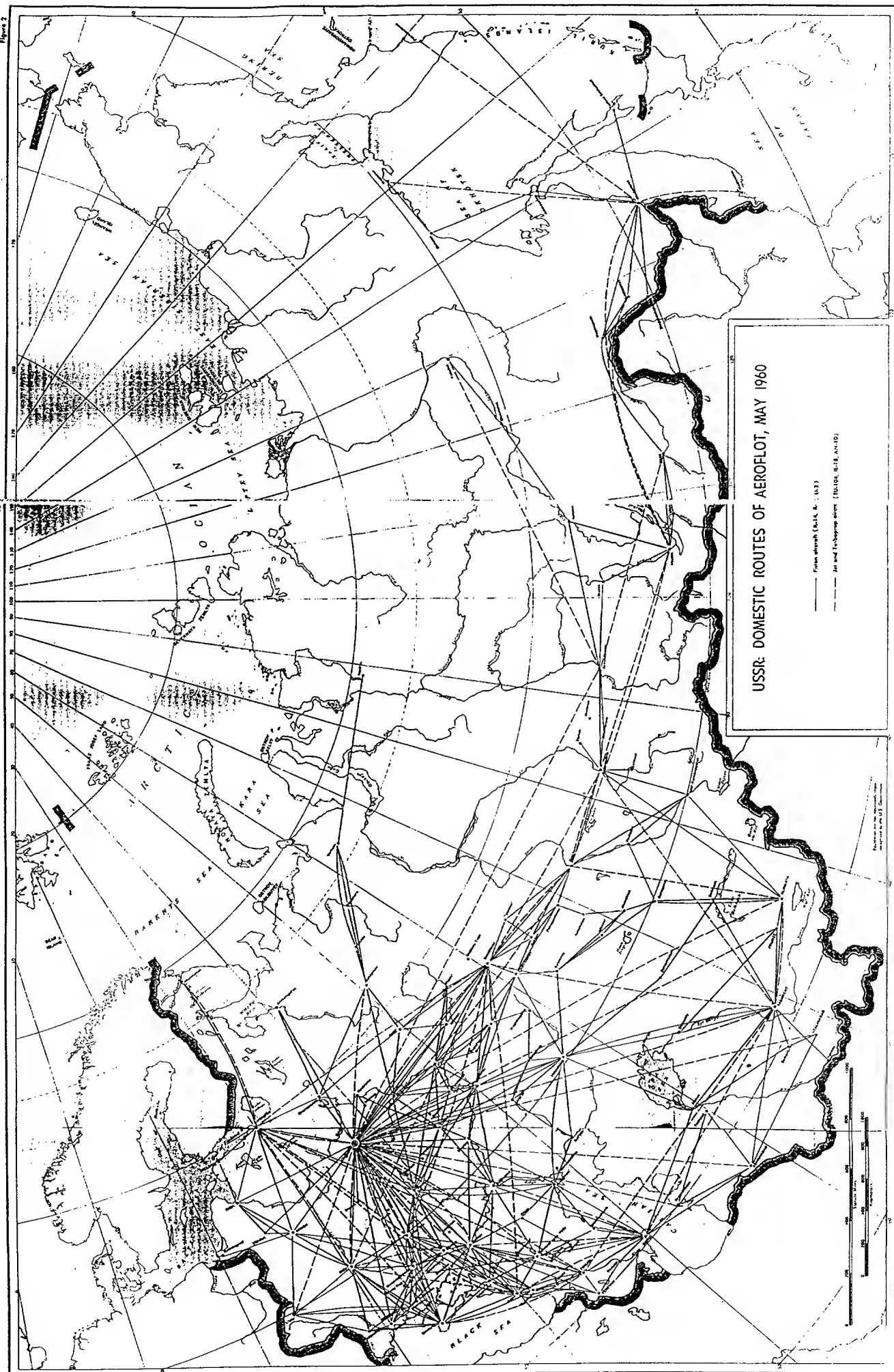
Passenger facilities are still primitive in many locations, and a lack of adequate communications facilities causes frequent delays in movement of aircraft. In Moscow a newly instituted service consists of checking in passengers at the terminal in the center of the city and taking them by special bus directly to the aircraft. A similar service is being planned for Leningrad and Kiev.

B. International Developments

1. International Network

By the beginning of 1959, Aeroflot services had been established between Moscow and all the capitals of the Sino-Soviet Bloc

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with the exception of Hanoi, North Vietnam. The major emphasis in intra-Bloc international operations in 1959 was on the improvement of service through the allocation of jet or turboprop aircraft to several routes. Semiweekly service by Tu-104 between Moscow and Peking supplemented daily service between the two capitals by slower aircraft. In January 1959 a weekly through service using Tu-104's was started between Moscow and P'yongyang. In the European Satellites, jet or turboprop service was inaugurated on the routes from Moscow to Bucharest and Sofia. At the end of 1959, Berlin and Warsaw were the only Bloc capitals not serviced by jet or turboprop aircraft.

Cities of Western Europe connected with Moscow by air at the beginning of 1959 included the capitals of Austria, Belgium, Denmark, France, Finland, the Netherlands, Sweden, and Yugoslavia. Other international connections existed with the capitals of India, Afghanistan, and Egypt.*

The only new international service inaugurated between the USSR and the Free World in 1959 was that between London and Moscow, shared by British European Airways (BEA) and Aeroflot, with each line providing two round trips per week. In this service the USSR originally used Tu-104's, and the UK used Viscount 806's. In November 1959 the USSR substituted the Il-18 for the Tu-104 on a trial basis apparently because construction limitations at the Copenhagen airport made it impractical to use the Tu-104. Within a few weeks, however, the Tu-104's were again in operation on the London to Moscow service.

The USSR appears to be having reasonable success in its international flights outside the Sino-Soviet Bloc. The weekly service to New Delhi has been very successful, with an average passenger load factor of 60 percent, and in April 1960 the number of flights between New Delhi and Moscow was to be doubled. It is probable that an average passenger load factor of 50 percent was attained on Soviet international flights to the Free World. This factor is slightly below that considered to be profitable by Western carriers.

Measures to increase international traffic also were announced by the USSR at the end of 1959. Among them are proposals to waive air transit visas and to perform consular services free.

2. Negotiations

Few formal negotiations for new international routes were undertaken by the USSR during 1959. Soviet economic activities in less developed countries such as Iraq and Ethiopia, however, apparently will include attempts to obtain air connections.

* See the map, Figure 3, following p. 12.

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A considerable boost to Soviet penetration of new areas will result if an agreement with Greece permitting overflights by Aeroflot can be negotiated successfully. Hitherto the barrier represented by Greece, Turkey, Iran, and Pakistan has restricted the southward expansion of Soviet civil air operations. Negotiation of overflight rights would save the USSR a considerable detour through Albania on the Cairo run and also would facilitate the utilization of the Il-18 for nonstop service on this route.

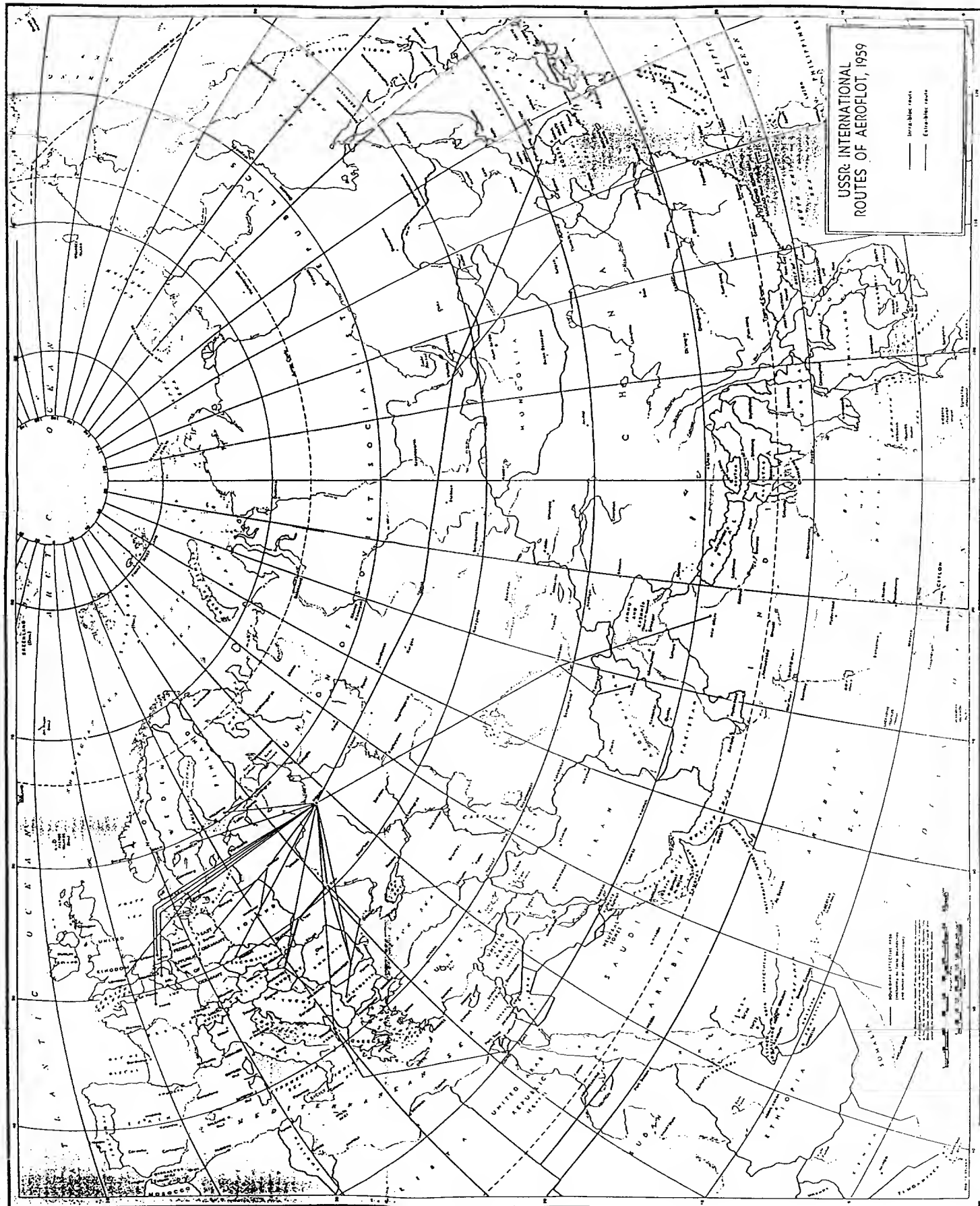
No progress was made in 1959 in the long-awaited Soviet attempt to inaugurate service between Moscow and New York. In spite of official enthusiasm for a route to New York, the USSR took no initiative toward actual negotiations. One probable reason for this delay was that the USSR wished to wait until the mechanical problems associated with the Tu-114 were solved. Another reason was the traditional reluctance of the USSR to grant transit rights across its own territory. It is probable that the Scandinavian countries will ask for such rights reciprocally if a service between Moscow and New York transiting their airspace is negotiated. The problem of reciprocal rights also arises in prospective negotiations with Indonesia. In this case the problem is to persuade India to grant "beyond" rights to the USSR without reciprocal rights for an Air India service between New Delhi and London.

3. Sales of Aircraft

The USSR has yet to sell any high-performance aircraft to countries outside the Sino-Soviet Bloc. By late 1959, attempts to sell the Tu-104 had been abandoned, and a fairly aggressive campaign to sell the Il-18 was launched. In the last quarter of 1959, three or four Il-18's were sold to Communist China, and five Il-18's were ordered by Czechoslovakia. Approaches also were made to many non-Bloc countries, including Australia, Austria, Belgium, India, Iraq, Japan, Mexico, and the UAR.

The values mentioned for these aircraft have ranged from US \$1 million to about US \$2 million, with terms and extras not clear. Based on Soviet practice with the Tu-104, it is probable that final offers, particularly if at bargain prices, will be tied to attempts at economic penetration of less developed countries or to the eventual exchange of airline services between such countries and the USSR. It is possible, however, that a number of sales will be made on a purely commercial basis. The USSR apparently has inventories of high-performance aircraft in excess of its needs, so that sales of these aircraft will help to make room for subsequent, improved types or for new aircraft. Such sales also will reduce the cost of maintaining a large reserve park.

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The major Soviet sale of piston aircraft during 1959 was the delivery of 20 Il-14's to Indonesia in the spring.

III. European Satellites

A. Domestic Developments

Domestic development of civil aviation in the European Satellites during 1959 was confined almost exclusively to measures in preparation for the receipt of high-performance aircraft. In terms of performance, no Satellite airline made impressive gains during 1959. The domestic and international route structures of the Satellite civil air carriers are shown on the map, Figure 4.* Data on the passenger performance of the major civil air carriers of the European Satellites in 1955-59 are shown in Table 4

Table 4

European Satellites: Passenger Performance
of Civil Air Carriers
1955-59

Million Passenger-Kilometers					
<u>Country a/</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>
Bulgaria	24.1	27.8	30.8	33.5	36.5
Czechoslovakia	93.6	116.9	135.0	193.1	264.5
East Germany b/	Negligible	N.A.	6.2	18.7	N.A.
Hungary	19.3	18.2	21.7	20.0	N.A.
Poland	65.9	88.6	101.0	74.8	94.7
Rumania	42.3	50.6	64.8	62.7	60.0

a. Excluding Albania.

b. Domestic service only.

In an effort to prepare for jet and turboprop aircraft operations, almost all of the European Satellites undertook extensive programs of airfield construction or modernization during 1959. Bulgaria announced the improvement of two civil airfields at Sofia and Varna in 1959. Both airfields are to be capable of taking Tu-104 jet and Tu-114 turboprop aircraft. The construction of these new air facilities in Bulgaria will give the coordinated Sino-Soviet Bloc civil air network improved bases for operations into the Black Sea area and the Middle East.

* Following p. 14.

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Programs for improvement of airfields in Czechoslovakia resulted in the completion of an 11,500-foot runway at Moznov and plans for the addition of an 11,500-foot runway at Prague/Ruzyne. Completion of this construction will give Czechoslovakia two airfields capable of handling the largest jet aircraft now active in civil aviation. Airfields of similar standards have been developed or are in process at Schoenefeld in East Berlin and at Mezokovesd in Hungary, and Okecie, the civil airfield at Warsaw, is being modernized to handle smaller jet aircraft such as the Comet 4.

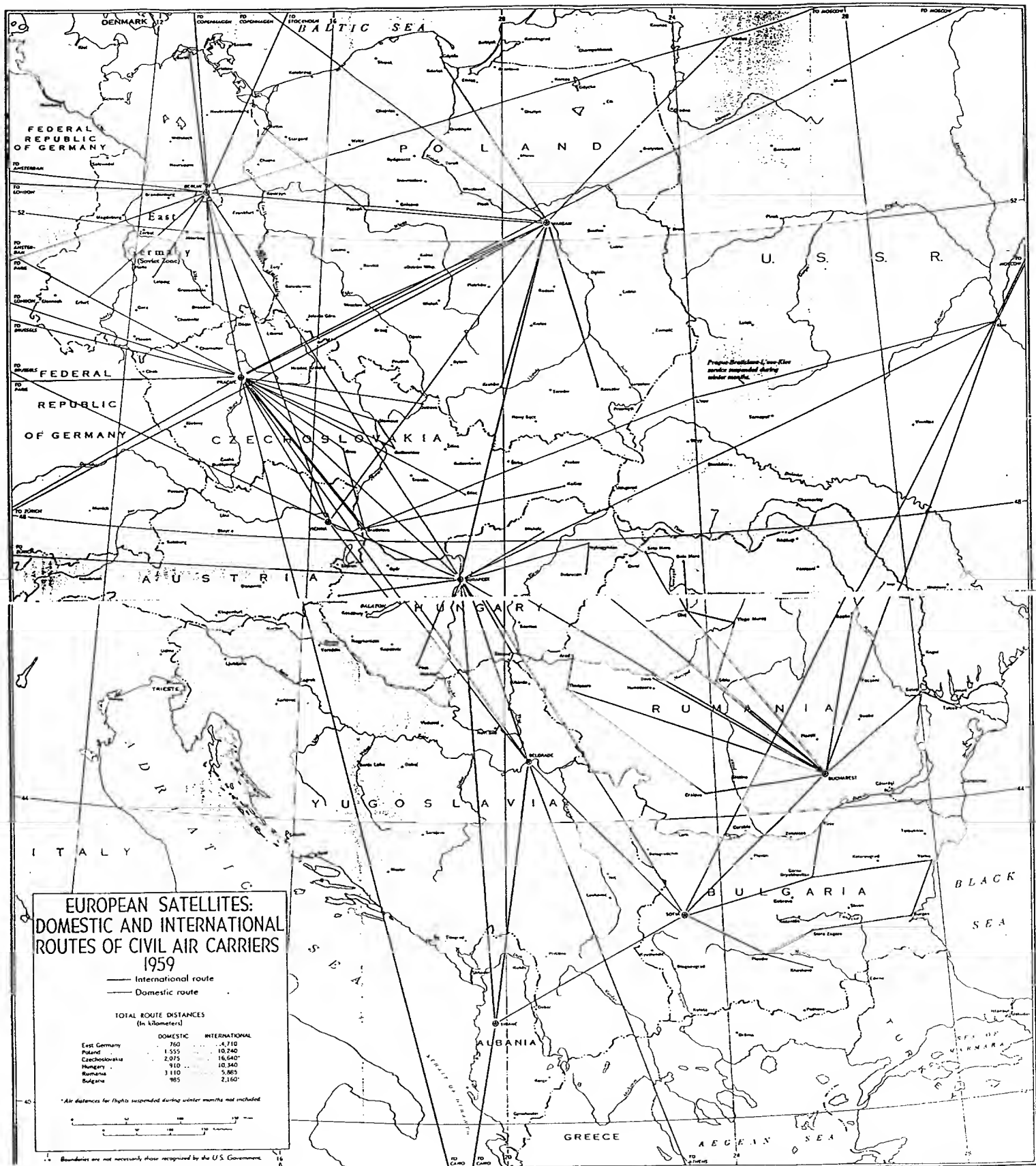
Plans to add several high-performance aircraft to current inventories of the civil air carriers in the European Satellites were announced during 1959 (see Table 5*). Inauguration of service with these aircraft was deferred until 1960 because at the end of 1959 only Czechoslovakia had received any high-performance transports. Delivery of two of the five Il-18's that Czechoslovakia had on order was made early in 1960. Il-18's used in domestic service will fly the route from Prague to Bratislava. Hungary announced in 1959 that it will be flying the Il-18 during 1960 and plans to obtain three Il-18's as part of a purchase of six turboprop aircraft from the USSR. East Germany also announced that it would operate with Il-18's in 1960, but no details on the number involved were made known. It is notable that Poland, which in 1958 most actively sought to purchase jet and turboprop aircraft from the West, does not intend to have high-performance aircraft in operational service until 1961. Poland apparently has decided to use Soviet rather than Western-built high-performance aircraft.

B. International Developments

Only two new international routes were flown by European Satellite carriers during 1959. The Hungarian carrier began providing some of the service from Budapest to Moscow, a service that previously had been provided by Aeroflot exclusively. In August of 1959, Czechoslovakia opened a new service to Bombay via Cairo. The implementation of this route puts the Czechoslovaks in competition with the USSR on service to both Egypt and India.

In 1959 a series of bilateral agreements was negotiated, providing for service on certain routes over which service has not yet been provided. Included were agreements for a service from Sofia to Cairo, a service from Budapest to Geneva, and a service from Budapest to Peking. Czechoslovakia announced its intention to seek an extension of its Prague-Cairo-Bombay service to Indonesia. The Czechoslovaks also announced that Il-18 aircraft will be used in routes from Prague to London, Paris, Beirut, and Baghdad.

* Table 5 follows on p. 14.



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Table 5

European Satellites: Inventory of Civil Aircraft
as of 31 December 1959

Country <u>a/</u>						Units
	<u>L1-2</u>	<u>IL-12</u>	<u>IL-14</u>	<u>Tu-104A</u>	<u>Convair</u>	<u>Total</u>
Bulgaria	11	0	4	0	0	15
Czechoslovakia	7	0	33	3	0	43
East Germany	0	0	32	0	0	32
Hungary	16	0	10	0	0	26
Poland	20	4	13	0	4	41
Rumania	20	1	10	0	0	31
Total	<u>74</u>	<u>5</u>	<u>102</u>	<u>3</u>	<u>4</u>	<u>188</u>

a. Excluding Albania.

The anomalous position of Lufthansa Ost, the East German carrier, led it to set up a second company, Interflug, in order to evade the prohibitions on a government level that prevent an unrecognized East Germany from concluding bilateral agreements with most countries outside the Sino-Soviet Bloc. As the international arm of Lufthansa Ost, Interflug has made about 29 air agreements at the company level that permit international arrangements with companies ranging from the British Overseas Airways Corporation (BOAC) and BEA of the UK to the Chinese Communist civil air carrier. These agreements do not permit reciprocal flights but are measures to facilitate ticketing, the establishment of booking agencies, and the chartering of aircraft, all of which serve to bring the East German carrier into international civil aviation circles.

IV. Communist Far East

A. Domestic Developments

Civil aviation activities in the Communist Far East are dominated by the position of Communist China. In contrast to China the other countries making up the Communist Far East have extremely primitive networks performing quite limited services (see the map, Figure 5*).

* Following p. 16.

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Passenger traffic in the Communist Far East can be estimated only for the airlines of North Korea and China, as shown in Table 6.

Table 6

Communist China and North Korea
Civil Air Passenger Traffic
1956-59

Million Passenger-Kilometers				
Country	1956	1957	1958	1959
Communist China	N.A.	79.9	108.9	127.5
North Korea	4.2	4.5	4.5	5.5

In Communist China the main emphasis during 1959 was on the continued expansion of regional air networks started in 1958. This program added 3,000 km to the 7,000-km route system established in 1958. The object of regional development has been to connect more remote areas to the national or provincial capitals. This program, moreover, has received priority over the expansion of international services.

Communist China was the first member of the Sino-Soviet Bloc to receive Il-18 aircraft from the USSR in 1959. At least three of these aircraft were delivered during the last quarter, and additional deliveries are anticipated during 1960. The inventories of the remaining countries in the Communist Far East consisted mainly of Il-14 and Li-2 aircraft, and no plans were announced for any significant changes in these inventories during 1960 (see Table 7*).

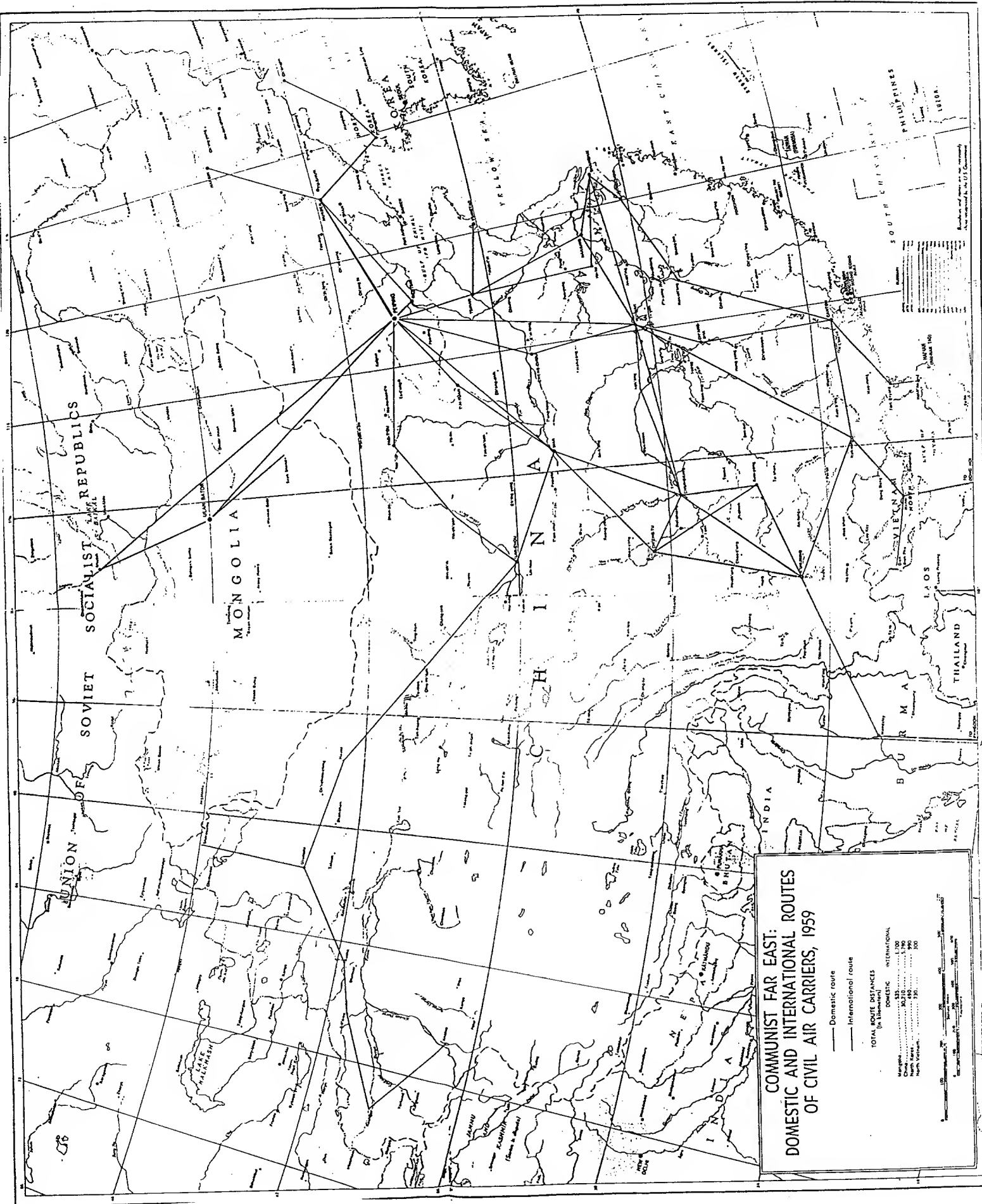
The beginning of a domestic North Vietnam civil airline was pushed along by the receipt in February 1959 of its first Il-14 aircraft. This plane, manufactured in East Germany, with others of the same type, will enable North Vietnam to carry out its announced plans for development of new air routes.

B. International Developments

The only expansion of international flights occurring in the Communist Far East during 1959 was the initiation of a reciprocal service from Peking to P'yongyang, formerly flown in segments by Aeroflot and the Civil Aviation Administration of China (CAAC).

* Table 7 follows on p. 17.

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COMMUNIST FAR EAST:
 DOMESTIC AND INTERNATIONAL ROUTES
 OF CIVIL AIR CARRIERS, 1959

— Domestic route
 — International route

TOTAL ROUTE DISTANCES (in thousands)	
DOMESTIC	INTERNATIONAL
U.S.S.R.	1,100
China	330
North Vietnam	450
North Korea	300

Routes and times are as the majority
 have indicated by the U.S. Government

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Table 7

Communist Far East: Inventory of Civil Aircraft
as of 31 December 1959

Country							Units
	<u>L1-2</u>	<u>Ts-62</u>	<u>IL-12</u>	<u>IL-14</u>	<u>C-47</u>	<u>IL-18</u>	<u>Total</u>
Communist China <u>a/</u>	25	5	5	60	0	3	98
North Korea	4	0	0	1	1	0	6
North Vietnam	3	0	0	4	0	0	7
Mongolia	10	0	0	5	0	0	15
Total	<u>42</u>	<u>5</u>	<u>5</u>	<u>70</u>	<u>1</u>	<u>3</u>	<u>126</u>

a. The Chinese Communists have 190 additional smaller aircraft used on regional lines and for special services, consisting of 185 An-2 and 5 Aero-45 aircraft.

The Chinese Communists did negotiate an air agreement with Ceylon, but they have announced that they do not intend to implement this agreement for at least 2 years. The explanation given is the preoccupation of the Chinese with the expansion of their domestic air network. The receipt of IL-18 aircraft, however, may mean that the Chinese may make further ventures outside the airspace of the Sino-Soviet Bloc earlier than they have announced.

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